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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/597,646

07/08/2008

Phenil Jayantilal Patel

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EXAMINER

YEAGER, RAYMOND P

ART UNIT

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4121

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/597,646	<b>Applicant(s)</b> PATEL ET AL.	
	<b>Examiner</b> RAYMOND P. YEAGER	<b>Art Unit</b> 4121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 August 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-41 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Application 10/597,646 (07/08/2008) is a national stage entry of PCT/IB2005/002203 (07/11/2005) per 35 USC 371 and claims benefit of US Provisional Application 60/590,076 (07/22/2004) per 35 USC 119e. Claims 1 to 41 are pending.

### ***Election/Restrictions***

1. Restriction is required under 35 U.S.C. 121 and 372. This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claims 1 to 27 are drawn to *a therapeutic composition*.

Group II, claims 28 to 41 are drawn to *a method of treatment*.

2. As set forth in Rule 13.1 of the Patent Cooperation Treaty (PCT), “the international application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept.” Moreover, as stated in PCT rule 13.2, “Where a group of inventions is claimed in one and the same international application, the requirement of unity of invention referred to in Rule 13.1 shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features.” Furthermore, Rule 13.2 defines “special technical features” as “those technical features that define a

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contribution which each of the claimed inventions, considered as a whole, makes over the prior art”

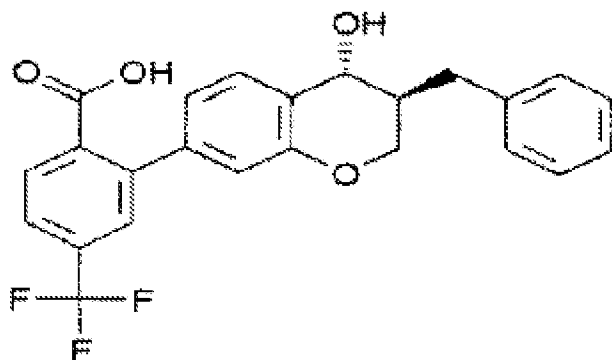
3. The inventions listed as Groups I-II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons.

The special technical feature of Group I is a *therapeutic composition of a COX-2 selective inhibitor and an LTB<sub>4</sub> receptor antagonist*. The *therapeutic composition of a COX-2 selective inhibitor and an LTB<sub>4</sub> receptor antagonist* claim 1 does not present a contribution over the prior art. As disclosed in Fiorucci et al, 2001 (*Biochemical Pharmacology*, vol 62:1433-1438), in view of Showell et al, 1998 (*The Journal of Pharmacology and Experimental Therapeutics*, vol. 285(3):946-954) the *therapeutic composition of a COX-2 selective inhibitor and an LTB<sub>4</sub> receptor antagonist* of instant claim 1 lacks an inventive step.

**Instant claim 1:** “A *therapeutic composition comprising at least one COX-2 selective inhibitor or a prodrug thereof and at least one LTB<sub>4</sub> receptor antagonist wherein the LTB<sub>4</sub> receptor antagonist comprises one or more compounds selected from the group consisting of 2-[(3S,4R)-3,4-dihydro-4-hydroxy-3-(phenylmethyl)-2H-1-benzopyran-7-yl]-4-(trifluoromethyl)benzoic acid; a pharmaceutically-acceptable salt thereof; and mixtures thereof.*” – Fiorucci et al, 2001 discloses a dual inhibitor of COX and 5-LOX (page 1435, section 4) wherein the COX-2 selective inhibitor is celecoxib and the 5-LOX inhibitor is an leukotriene B<sub>4</sub> (LTB<sub>4</sub>) activity inhibitor (page 1435, section 3, second column and page 1436, section 4, column 1, paragraph 1). Fiorucci et al, 2001 further discloses that

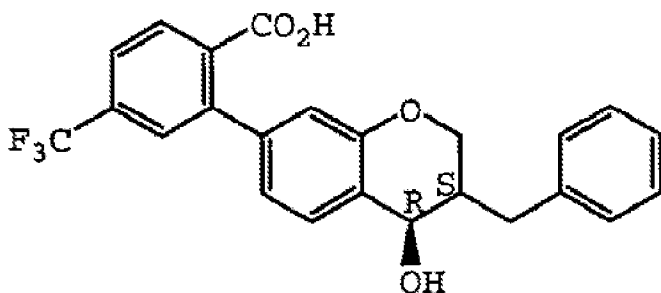
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dual inhibitors of COX/5-LOX represent promising new alternative to NSAIDS in the treatment of inflammation (page 1437, column1, lines 19-30). The prior art teachings of Fiorucci et al, 2001 differ from the claimed invention as follows: Fiorucci et al, 2001 does not disclose the claimed LTB<sub>4</sub> inhibitor. However, Showell et al, 1998 teaches all the limitations that are deficient in the Fiorucci et al, 2001: Showell et al, 1998 discloses an LTB<sub>4</sub> inhibitor (CP-195543) which anticipates the LTB<sub>4</sub> inhibitor in the instant application (page 947, figure 1). The LTB<sub>4</sub> inhibitor in Showell et al, 1998 is:



CP-195543

The LTB<sub>4</sub> inhibitor in claim 1 of the instant application is:



It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to combine celecoxib with an LTB<sub>4</sub> receptor antagonist as taught in

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Fiorucci et al, 2001 with CP-1995543 as the LTB<sub>4</sub> receptor antagonist as taught in Showell et al, 1998 because Showell et al, 1998 teaches that CP-1995543 maintains its potency in complex biological fluids (page 947, column 1, paragraph 1). A person of ordinary skill in the art would have been motivated to do so because Fiorucci et al, 2001 teaches therapeutic intervention in human inflammatory conditions by inhibition of LTB<sub>4</sub> activity (page 1435, column 2 paragraph 1) and Showell et al, 1998 teaches CP-1995543 is an intrinsically potent and specific antagonist of LTB<sub>4</sub> receptors (page 953, column 1, second paragraph). A person of ordinary skill in the art would reasonably have expected to be successful because Showell et al, 1998 discloses that CP-1995543 exhibits preclinical pharmacokinetics which would be predicted to have a more favorable pharmacokinetic profile in man (page 947, column 1, paragraph 1).

As such, Group I does not share a special technical feature with the instant claims of Group II. Therefore, the claims are not so linked with the meaning of PCT Rule 13.2 so as to form a single inventive concept, and unity between Groups I-II is broken.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

5. The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are

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subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

***Election of Species***

6. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

7. The applicant must elect the following species:

- If applicant elects Group I, the following species elections are required:
  - One specific disclosed *COX-2 selective inhibitor*. Applicant is required to elect a single compound species from the compound structures, tautomers thereof, and pharmaceutically acceptable salts, hydrates and prodrugs thereof;
  - One specific disclosed *LTB<sub>4</sub> receptor antagonist*. Applicant is required to elect a single compound species from the compound structures, tautomers thereof, and pharmaceutically acceptable salts, hydrates and prodrugs thereof;
- If applicant elects Group II, the following species elections are required:
  - One specific disclosed *COX-2 selective inhibitor*. Applicant is required to elect a single compound species from the compound structures, tautomers thereof, and pharmaceutically acceptable salts, hydrates and prodrugs thereof;
  - One specific disclosed *LTB<sub>4</sub> receptor antagonist*. Applicant is required to elect a single compound species from the compound structures, tautomers thereof, and pharmaceutically acceptable salts, hydrates and prodrugs thereof;
  - One specific disclosed *disorder, disease, or condition* to be treated. Applicant is required to elect a single disorder, condition, or disease to be treated or improved by the compound.



Specifically, Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. Upon Applicant's election of species, the result must provide a single chemical species and a single condition or disease to be treated or improved. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, one specific *COX-2 selective inhibitor* and one specific *LTB<sub>4</sub> receptor antagonist* for group I, one specific *COX-2 selective inhibitor*, one specific *LTB<sub>4</sub> receptor antagonist*, and one specific *disorder, disease, or condition* for group II, for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 1 is generic for group I and claim 28 is generic for group II.

8. Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

9. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding technical feature for the following reasons: As discussed *supra*.

**Applicant is advised that the reply to this requirement to be complete must include (i) an election of species to be examined** even though the requirement may be traversed (37 CFR 1.143) **and (ii) identification of the claims encompassing the elected species**, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

The election of the species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the election of species requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected species.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the species unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other species.

Upon allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all

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the limitation of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

10. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAYMOND P. YEAGER whose telephone number is (571)270-7681. The examiner can normally be reached on Mon - Fri 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Nolan can be reached on (571) 272-0847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

R.P.Y.

/Patrick J. Nolan/  
Supervisory Patent Examiner, Art Unit 4121